

In re: Shim et al.
Serial No.: 09/903,070
Filed: July 11, 2001
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REMARKS

This is a full and timely response to the Office Action mailed June 19, 2003 (paper no. 9) (hereinafter "Office Action"). Applicants appreciate the Examiner's thorough examination of the present application as evidenced by the Office Action. In response, Applicants have amended Claims 1, 2, 7, 8, 11, and 20 to clarify that the wafer(s) are inserted into the cassette or carrying device. Applicants submit that the independent Claims 1, 7, and 11 are patentable because the cited references do not disclose or suggest sealing a packing bag by applying force to an outer surface of the bag so as to press the bag against the external form of the cassette or carrying device.

Accordingly, Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration of all pending claims is respectfully requested for at least the reasons discussed hereafter.

Claims 1 - 20 Satisfy the Requirements of 35 U.S.C. §112

Claims 1 - 20 stand rejected under 35 U.S.C. §112 as being indefinite because the claims do not positively recite the wafers. (Office Action, page 2). In response, Applicants have amended the independent Claims 1, 7, and 11 to include recitations that positively introduce "wafers." In addition, the misspelling of "wafers" has been corrected in Claim 2.

Independent Claims 1, 7, and 11 are Patentable over the Cited References

Independent Claims 1 and 11 stand rejected under 35 U.S.C. §103 as being unpatentable over U. S. Patent No. 6,155,027 to Brooks (hereinafter "Brooks") in view of U. S. Patent No. 6,397,560 to Weder (hereinafter "Weder"), U. S. Patent No. 3,625,348 to Titchenal *et al.* (hereinafter "Titchenal"), and U. S. Patent No. 4,611,456 to Gillio-tos *et al.* (hereinafter "Gillio-tos"). Independent Claim 7 stands rejected under 35 U.S.C. §103 as being unpatentable over Brooks in view of Weder, Titchenal, and Gillio-tos and further in view of U. S. Patent No. 4,928,474 to Schirmer (hereinafter "Schirmer").

Independent Claims 1, 7, and 11 are directed to methods of packing semiconductor wafers in which a packing bag is used. In particular, a bag is used to enclose one or more

wafers and is manipulated as described, for example, in the following recitation from independent Claim 11:

molding the packing bag by **applying force to an outer surface of the packing bag, opposite the carrying device, so as to press the packing bag against at least a portion of an external form of the carrying device** such that a portion of the packing bag substantially conforms to the at least a portion of the external form of the carrying device. (Emphasis added).

Claims 1 and 7 include similar recitations. This aspect of the present invention is discussed, for example, in the Specification at page 5, lines 3 - 19.

The Office Action acknowledges that Brooks does not teach molding the packing bag by applying force to an outer surface, opposite the carrying device, so as to press the packing bag against at least a portion of an external form of the carrying device. (Office Action, page 4). The Office Action does allege, however, the following:

Weder '560 teaches that forming it around the package, which is placed within the bag, by applying external pressure to the bag and forming it to the package located within it can close a bag. Titchenal et al. '098 teaches that a bag can be tightly fitted to the package held within the bag, thereby hermetically sealing the bag, by having an adhesive layer on the inside of the bag that allows for the bag to adhere to the form of the package held within it. Therefore, it would have been obvious, to one of ordinary skill on the art, at the time the invention was made, to make the bag of Brooks '027 conform to the cassette located within the bag by applying an external force on the outside of the bag, as taught by Weder '560, and allowing the bag to have an internal adhesive layer that attaches the bag to the form of the cassette and hermetically sealing the bag, as taught by Titchenal et al. '098, to prevent any contamination of the wafer located within the bag. (Office Action, page 4).

Applicants respectfully disagree with the above interpretation of the teachings of Weder and Titchenal. Turning first to the Weder reference, Applicants submit that rather than disclosing or suggesting applying force to an outer surface of a packing bag so as to press the packing bag against at least a portion of an external form of an article contained therein, Weder discloses the use of gussets to cause a bag to generally conform to its contents. The following passage is illustrative of Weder's teachings:

The plurality of side gussets 70 in the expanded position and/or the bottom gusset 72 in the expanded position permit the bag 12 to conform to the overall shape of the outer surface 90 of the basket 84. The plurality of side gussets 70 and/or bottom gusset 72 permit the bag 12 to conform to the contours and overall shape of the outer surface 90 of the basket by expanding and contracting, thereby permitting the bag 12 to follow the contours of the basket 84 and to conform to the contours of the outer surface 90 of the basket 84. When the bag 12 has only a bottom gusset 72, it will be understood that the bottom gusset 72 permits the bag 12 to conform to the contours of the outer surface 90 of the lower end 88 and a substantial portion of the basket 84. (Weder, col. 10, lines 51 - 64).

Thus, Applicants submit that Weder fails to disclose or suggest sealing a packing bag by applying force to an outer surface of the bag so as to press the bag against the external form of a cassette or carrying device as recited in independent Claims 1, 7, and 11.

Turning next to Titchenal, this reference is directed to packaging an article in a multilayer flexible plastic sheet in which "opposing sheet portions can be readily collapsed into conforming contact with the article by folding operations, vacuumizing a container, or other similar packaging techniques." (Titchenal, col. 6, lines 3 - 6). Titchenal further explains that "[i]n some preferred embodiments, however, the opposing sheet portions in the form of a container are collapsed about the article by shrinking said sheet portions into conforming contact." (Titchenal, col. 6, lines 6 - 9). Applicants acknowledge that Titchenal discloses various techniques for packaging an article in plastic sheets as discussed above. Applicants submit, however, that Titchenal fails to provide the teachings missing from Weder with regard to sealing a packing bag by applying force to an outer surface of the bag so as to press the bag against the external form of a cassette or carrying device as recited in independent Claims 1, 7, and 11.

For at least the foregoing reasons, Applicants respectfully submit that independent Claims 1, 7, and 11 are patentable over the cited references, either alone or in combination, and that dependent Claims 2 - 6, 8 - 10, and 12 - 20 are patentable at least as they depend from an allowable claim.

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CONCLUSION

In light of the above amendments and remarks, Applicants respectfully submit that the above-entitled application is now in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested. Alternatively, Applicants respectfully request entry of the present amendment as narrowing the issues for further consideration. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

It is not believed that an extension of time and/or additional fee(s)-including fees for net addition of claims-are required, beyond those that may otherwise be provided for in documents accompanying this paper. In the event, however, that an extension of time is necessary to allow consideration of this paper, such an extension is hereby petitioned under 37 C.F.R. §1.136(a). Any additional fees believed to be due in connection with this paper are hereby authorized to be charged to our Deposit Account No. 50-0220.

Respectfully submitted,



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Traci A. Brown